AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) Solid polymer electrolyte comprising a polymer and a metal salt wherein the salt is optionally attached to the polymer, said polymer comprising at least one methacrylonitrile polymer chosen from:

[[-]] ~~linear homopolymers of high mass;~~

[[-]] ~~three-dimensional crosslinked homopolymers;~~

[[-]] ~~linear methacrylonitrile copolymers of high mass; or~~

[[-]] three-dimensional copolymers of methacrylonitrile and ~~of~~ at least one acrylic or methacrylic comonomer, wherein at least one of said acrylic or methacrylic comonomer is a crosslinkable comonomer.

Claims 2-4 (Canceled)

5. (Currently Amended) Solid polymer electrolyte according to Claim [[4]] 38, wherein the ~~methacrylonitrile polymer is a copolymer of methacrylonitrile, of a crosslinkable comonomer, and of at least one~~ acrylic or methacrylic comonomer

~~corresponding~~ providing internal plasticization corresponds to the formula CHX=CZ-CO-V-Y, in which:

- X represents C_nH_{2n+1}, with $0 \leq n \leq 8$;
- Z represents C_nH_{2n+1}, with $0 \leq n \leq 8$, or $(CH_2)_mCN$, with $0 \leq m \leq 4$;
- V represents O, NH or NR, R represents C_nH_{2n+1}, with $0 \leq n \leq 8$;
- Y represents a C_nH_{2n+1} radical, with $0 \leq n \leq 8$, a radical carrying an oxirane group C_nH_{2n}-(CH-CH_2)-O, with $1 \leq n \leq 4$, or a radical $[(CH_2)_m$-O-$]_pR'$, in which m = 2, 3 or 4, $1 \leq p \leq 50$ and R' represents C_nH_{2n+1}, with $0 \leq n \leq 8$.

Claims 6-13 (Canceled)

14. (Currently Amended) Solid polymer electrolyte according to Claim [[2]] 39, wherein the ~~methacrylonitrile polymer is a bipolymer of methacrylonitrile and of a monomer carrying~~ said comonomer carries an ionic functional group selected from the group consisting of carboxylate, phosphate, phosphonate, sulfonate and perfluorosulfonate.

Claim 15 (Canceled)

16. (Currently Amended) Solid polymer electrolyte according to Claim [[4]] 47, wherein the crosslinkable comonomer is glycidyl acrylate or glycidyl methacrylate.

Claims 17-37 (Canceled)

38. (Currently Amended) Solid polymer electrolyte according to Claim 1, wherein the methacrylonitrile polymer is a copolymer of methacrylonitrile, a crosslinkable acrylic or methacrylic comonomer and ~~of a~~ an acrylic or methacrylic comonomer providing internal plasticization of the polymer by decreasing its glass transition temperature.

39. (Currently Amended) Solid polymer electrolyte according to Claim 1, wherein the methacrylonitrile polymer is a copolymer of methacrylonitrile, a crosslinkable acrylic or methacrylic comonomer and ~~of~~ a comonomer which has an ionic functional group in order to obtain a unipolar electrolyte.

40. (Previously Presented) Solid polymer electrolyte according to claim 1, wherein said salt comprises at least one lithium salt chosen from the group consisting of lithium halides, lithium perfluorosulfonate, lithium (trifluoromethylsulfonyl)imide, lithium bis(trifluoromethyl-sulfonyl)methide, lithium tris(trifluoromethylsulfonyl)methide, lithium perchlorate, lithium hexafluoroarsenate, lithium hexafluorophosphate, lithium hexafluoroantimonate and lithium tetrafluoroborate.

41. (Previously Presented) Solid polymer electrolyte according to claim 40, wherein said lithium halides are of the formula LiX where X = Cl, Br, I or I_3.

42. (Previously Presented) Solid polymer electrolyte according to claim 1, which additionally comprises at least on solvent chosen from propylene carbonate (PC), ethylene carbonate (EC), γ-butyrolactone, dimethoxyethane or dialkyl carbonates.

Claim 43 (Canceled)

44. (New) Solid polymer electrolyte according to claim 1, wherein the crosslinkable acrylic or methacrylic comonomer is crosslinkable by polycondensation.

45. (New) Solid polymer electrolyte according to claim 44, wherein the acrylic or methacrylic crosslinkable comonomer has a functional group selected from the group consisting of an alcohol group cross-linkable by diisocyanate compounds, an isocyanate functional group cross-linkable by a polyol or a polyamine, and a trialkoxysilyl group cross-linkable by hydrolysis condensation.

46. (New) Solid polymer electrolyte according to claim 1, wherein the crosslinkable acrylic or methacrylic comonomer is crosslinkable by cationic polymerization.

47. (New) Solid polymer electrolyte according to claim 46, wherein the crosslinkable acrylic or methacrylic comonomer has an oxirane functional group.

48. (New) Solid polymer electrolyte according to claim 38, wherein the comonomer providing internal plasticization comprises butyl acrylate.

49. (New) Solid polymer electrolyte according to Claim 5, wherein the methacrylonitrile polymer is a copolymer of methacrylonitrile, a crosslinkable acrylic or methacrylic comonomer and at least one acrylic comonomer corresponding to the formula CHX=CZ-CO-V-Y in which X = H, Z = CH_3, V = O and Y = $[(CH_2)_m\text{-}O]_pR'$, with m = 2, R' = H or CH_3 and $1 \leq p \leq 22$.